



Regular Update on Methyl Bromide Alternatives

September 2007

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GLOBAL

1- Methyl Bromide related decisions quoted from the Summary of the 19th MOP:

--- **METHYL BROMIDE: Critical-Use Exemptions for Methyl Bromide for 2008 and 2009:** The issue was raised in the preparatory segment on Tuesday. A contact group met in closed sessions on Wednesday, Thursday and Friday, and a draft decision was then forwarded to the preparatory segment on Friday and adopted by the high-level segment.

In plenary, the Methyl Bromide Technical Options Committee (MBTOC) reported "excellent progress" in phasing out methyl bromide, citing a significant decline in nominations for critical-use exemptions (CUEs) for 2008/2009. Delegates raised concerns about slow adoption of alternatives and disputed large CUE nominations, noting that up to 40% of stocks were not being used for critical uses. The EC tabled a draft decision for consideration. The US proposed an alternative decision and said they had adopted alternatives in most sectors and noted that stocks will run out in 2009. The Natural Resources Defense Council warned that progress on HCFCs would be undone by allowing large CUEs for methyl bromide. Co-Chair Levaggi established a contact group, to be chaired by Pierre Pinault (Canada).

In the preparatory segment plenary on Friday, Co-Chair Sorensen reported that the draft decision (UNEP/OzL.Pro.19/CRP.21) was a combination of US and EU proposals. The US said that the decision resembles those of previous years. The EU noted that the decision follows the recommendations of MBTOC, drawing attention to the 300-tonne reduction of ODS.

Final Decision: In the decision (UNEP/OzL.Pro.19/L.2 Decision XIX/F), the MOP: approves production and consumption for 2008 necessary to satisfy critical uses; requests parties with a CUE in excess of production to make up differences from stocks; requests parties to require licensees to use emission minimization; and requests the TEAP to continue publishing annually a progress report on stocks of methyl bromide, and to provide to the Open Ended Working Group a written explanation of methodology

The tables annexed to the decision include: agreed critical use categories, and amounts permitted for Australia, Canada, Israel, Poland, Spain and the US for 2008 and 2009. For the US, the 2009 tonnage is 3962 tonnes, with the caveat "minus available stocks."

Preventing Harmful Trade in Methyl Bromide Stocks: In the preparatory segment plenary on Tuesday, Kenya introduced a proposed decision on this issue (UNEP/OzL.Pro.19/3, Decision XIX/B), which it said aimed to help Article 5 parties combat unwanted imports. Many delegations questioned how the draft decision might prevent unwanted trade, and said that licensing was the most effective way of combating illegal trade. Co-Chair Sorensen referred the proposal to the contact group on illegal trade (*see page 9*).

CONSIDERATION OF ISSUES ARISING OUT OF THE 2007 TEAP REPORTS: Essential use nominations: In the preparatory segment on Tuesday, delegates discussed requests for essential-use nominations for controlled substances, including requests for an exemption from the Russian Federation for the aerospace industry (UNEP/OzL.Pro.19/3, Draft Decision XIX/H), and from the EU, the Russian Federation and the US for metered-dose inhalers (MDIs) (UNEP/OzL.Pro.19/3, Draft Decision XIX/J). Mexico supported the requests, while Argentina opposed, noting the existence of alternatives. The Russian Federation and the US noted that the requests were approved by OEWG-27 and endorsed by the TEAP. On Thursday, the Russian Federation reported that its proposal for CFC-113 exemptions for aerospace uses had been agreed with the EU, US and Mexico. The proposals were supposed to be merged and then were forwarded to the high-level segment and adopted on Friday evening.

Final Decision: In the decision (UNEP/OzL.Pro.19/L.2, Decision XIX/J), the MOP, *inter alia*: notes TEAP's listing of alternatives to CFCs for MDIs; urges parties to commit to reformulating products, provide information on the timetable of reformulation, and provide evidence of transition away from CFCs; requests countries to meet their phase-out commitments by the end of 2009; and approves quantities of CFCs for MDIs of 200 tonnes for the EU, 212 tonnes for the Russian Federation, and 282 tonnes for the US.

The text relating to the Russian Federation's CFC-113 exemptions for aerospace uses was unintentionally omitted from the text of the decision (UNEP/OzL.Pro.19/L.2, Decision XIX/J), and the Ozone Secretariat agreed to correct this oversight.

Process Agent Related Proposals: This issue was considered in the preparatory segment on Tuesday. Co-Chair Levaggi explained that the proposal related to an update of Table A of decision X/14 as amended in decision XVII/7, and Table A-bis of decision XVII/8, listing uses of controlled substances as process agents. The issue was referred to the high-level segment on Friday, where the decision was adopted.

Final Decision: The decision (UNEP/OzL.Pro.19/L.2, Decision XIX/K) adopts replacement Tables A and A-bis for the relevant process agent decisions.

TEAP Report on Carbon Tetrachloride emissions and opportunities for reductions: In the preparatory segment on Tuesday, Co-Chair Sorensen noted that the TEAP study on carbon tetrachloride was not complete and parties requested TEAP to include these results in next year's report.

N-Propyl Bromide Proposal: In the preparatory segment on Tuesday, the EU tabled a proposal on n-propyl bromide (UNEP/OzL.Pro.19/3/CRP.9), which delegates agreed to consider under the agenda item on new very short-lived ODS...

Source: The Earth Negotiations Bulletin, Vol. 19 No. 60, 24 September 2007,

<http://www.iisd.ca/vol19/enb1960e.html>

See also UNEP Ozone Secretariat, http://ozone.unep.org/Meeting_Documents/mop/19mop/index.shtml

NORTH AMERICA

2- New Lab Methods Speed Testing of Fumigant Emissions

A simpler, quicker way to track pesticide emissions from agricultural fields has been devised by Agricultural Research Service (ARS) scientists. Using low-cost laboratory tests and mathematical models, research leader [Scott Yates](#) and colleagues at the [U.S. Salinity Laboratory](#) in Riverside, Calif., are able to evaluate—and even predict—fumigant emissions.

With a ban looming on methyl bromide, a pre-plant soil fumigant widely used by fruit and vegetable growers, Environmental Protection Agency (EPA) regulators are evaluating various emissions-lowering fumigation alternatives. Each potential methyl bromide replacement will require its own set of regulations, based on findings from complex field studies.

According to Yates, such studies can take up to a year to complete, cost hundreds of thousands of dollars and, in the process, bring research teams in contact with toxic chemicals. Since a variety of factors must be considered in each EPA evaluation, such as variations in soil and environmental conditions, as many as 60 costly, long-term field experiments may be necessary.

Yates' team has shown that lab tests can yield some of the same results as those painstakingly obtained from outdoor field studies. To collect their data, the ARS scientists designed elaborate soil columns and soil cell equipment with which to observe pesticide movement through soil. They combine data collected this way with numerous mathematically driven models.

These laboratory studies are ideally suited for helping pinpoint information such as the total fraction of a given fumigant that ends up leaving the soil after it's applied. This measurement, known as "cumulative emissions," is one of the EPA's critical data requirements for obtaining approval for soil fumigants.

Yates is quick to acknowledge that field studies will always be needed to tie lab-based findings to real-world agricultural landscapes. That's because laboratory methods cannot provide certain emissions data that are linked to prevailing weather conditions, agricultural practices and other factors.

[Read more](#) about this research in the October 2007 issue of *Agricultural Research* magazine.

Source: ARS, the [U.S. Department of Agriculture Research Agency](#), 4 October 2007, By [Sharon Durham](#).

<http://www.ars.usda.gov/is/pr/2007/071004.htm>

For Further Reading :

- [Brassica may be natural fumigant for apple orchards](#)
- [New plastic covering complements methyl bromide alternative](#)
- [Mustard plants may offer alternative to methyl bromide](#)

3- EPA to Approve New Fumigant for Crops

The Environmental Protection Agency is expected within days to approve a new toxic fumigant for use by fruit and vegetable farmers, despite opposition from California regulators, prominent scientists and environmental and farmworker groups.

The agency intends to register methyl iodide as a substitute for the pesticide methyl bromide, which is being phased out by international treaty, according to government officials familiar with the decision. The new product is MIDAS, a methyl iodide compound manufactured by Tokyo-based Arysta LifeScience Corp. Its EPA approval is due by Friday, said the officials, who spoke on condition of anonymity because they were not authorized to discuss the decision publicly.

EPA spokesman Dale Kemery said only that a decision will be announced later this week.

Anticipating EPA's approval, 54 scientists and physicians are urging EPA Administrator Stephen Johnson to block the move for health-related reasons or to permit a panel of independent scientists to scrutinize EPA's safety analysis. They include six chemistry Nobel Prize winners.

"We are concerned that pregnant women and the unborn fetus, children, the elderly, farm workers and other people living near application sites would be at serious risk" from fumigated fields, the group said in a letter to Johnson. They described the newer fumigant as "one of the more toxic chemicals used in manufacturing."

The deadly fumigant is injected into the soil to kill pests before planting tomatoes, strawberries and other crops in agricultural states like California and Florida. It is not applied directly to fruits and vegetables, so experts do not contend consumers are at risk from eating crops where the fumigant is used.

EPA's analysis evaluated possible buffer zones around fields and concluded that bystander exposure would not be significant. It said farmworkers could protect themselves sufficiently with respirators.

Internal documents obtained by The Associated Press indicate use of the fumigant may be approved on an interim basis and later reviewed after new safety restrictions are set for a group of fumigants already in use. California is conducting its own review and would have to approve methyl iodide before farmers there could use it, said Glenn Brank, spokesman for the state Department of Pesticide Regulation.

"It's extremely toxic," Brank said. "We are concerned about whether or not this can be used safely."

The state last year criticized EPA's scientific analysis. Facing other objections, including some from its own scientists, EPA subsequently decided against approval and said it would revisit the matter this year.

EPA evaluated animal studies that linked methyl iodide inhalation to fetal death, respiratory lesions, thyroid toxicity and neurotoxicity, and thyroid tumors in rats. It concluded the chemical was not likely cancerous in humans "at doses that do not alter rat thyroid hormone homeostasis."

California, however, classifies the fumigant as a carcinogen. Studies also show chronic exposure can harm the central nervous system, lungs, skin and kidneys.

Growers welcome new alternatives to methyl bromide, which broadly annihilates soil pests and weeds but is banned under the Montreal Protocol, with progressively smaller amounts permitted each year.

Steve Fennimore, a University of California at Davis extension specialist, said MIDAS was the most effective substitute in strawberry and other trials. Georgia researchers are still studying the chemical's effectiveness, according to Charles Hall, executive director of the Georgia Fruit and Vegetable Growers Association.

Florida's tomato industry, weighed down by foreign competition and higher energy costs, also will closely evaluate the new fumigant's cost and how much is needed to be effective, said Reggie Brown, the executive vice president for the Florida Tomato Exchange.

"I wouldn't like to live near a field where it's applied," said Cornell University Professor Roald Hoffmann, a 1981 Nobel winner who was among those urging the EPA to block the approval.

In addition to its toxicity, methyl bromide was widely criticized for depleting the protective ozone layer; methyl iodide does not. Still, the senior scientist with the Pesticide Action Network of North America, Susan Kegley, said the EPA should help farmers move away from toxic chemicals.

Source: Associated Press, By RITA BEAMISH – Sep 25, 2007

http://ap.google.com/article/ALeqM5ix6b5Jx_SgzxVp5BBqmw4fOMDppg

4- The Chemical That Must Not Be Named

MONTREAL, Canada, Sep 20 (IPS) - Delegates from 191 nations are on the verge of an agreement under the Montreal Protocol for faster elimination of ozone-depleting chemicals, but the United States insists it must continue to use the banned pesticide methyl bromide.

Even as another enormous ozone hole forms over the Antarctic this week, the rest of the world appears to be giving in to U.S. demands despite the fact that the use of methyl bromide in developed countries was supposed to have been completely phased out by Jan. 1, 2005 under the Montreal Protocol on Substances that Deplete the Ozone Layer.

"It's a black mark on this meeting. It is the chemical that must not be named," said David Doniger, climate policy director at the Natural Resources Defence Council, a U.S. environmental group.

"There is a powerful lobby group of strawberry and vegetable growers in Washington," Doniger told IPS.

Methyl bromide is a highly toxic fumigant pesticide which is injected into soil to sterilise it before planting crops. It is also used as a post-harvest decontaminant of products and storage areas. Although it is highly effective in eradicating pests such as nematodes, weeds, insects and rodents, it depletes the ozone layer and poses a danger to human health.

While alternatives exist for more than 93 percent of the applications of methyl bromide, some countries such as the U.S., Japan and Israel claimed that because of regulatory restrictions, availability, cost and local conditions, they had little choice but to continue its use as a pest control. And so despite the ban, the Montreal Protocol allows "critical use exemptions" for countries to continue to use banned substances for a short period of time until they can find a substitute.

In 2006, the United States received an exemption to use 8,000 tonnes of methyl bromide, compared to 5,000 tonnes for the rest of the developed world combined.

At the 19th Meeting of the Parties here in Montreal, the committee reporting on methyl bromide use reported "excellent progress" in the continuing phase-out of the chemical and that not many applications for critical use exemptions had been received. The notable exception continues to be the U.S., which has applied for 6,500 tonnes for 2008 and 5,000 tonnes for 2009, even as the rest of the developed world has dropped significantly to just 1,900 and 1,400 tonnes, respectively.

The delegate from Switzerland expressed concern that some countries were asking for large amounts and that 40 percent of the stocks were not being used for critical uses. The United States maintains a large inventory of methyl bromide in excess of 8,000 tonnes, but the U.S. representative said these would be used up by 2009.

Emissions of methyl bromide have an immediate impact on the ozone layer, noted Janos Mate of Greenpeace International.

"Scientists think it has three to 10 times the impact of other chemicals," Mate told IPS.

The ozone layer will be at its "most delicate" over next few decades before it begins to significantly recover. Climate change is slowing this recovery, and the impacts are not fully understood, he said.

The ozone layer is the part of the atmosphere 25 kilometres up that acts as a shield protecting life on Earth from damaging ultraviolet rays, which can cause sunburns, skin cancer and cataracts. The rays can also harm marine life.

In the past two years, ozone holes larger than Europe have opened over the Antarctic and Southern Ocean. The World Meteorological Organisation reported this week that the hole is back and bigger than ever. And it could grow larger as spring returns to the southern hemisphere.

Climate change appears to be playing a role in the formation of these holes. Paradoxically, as the Earth warms at the surface, in the polar regions the upper atmosphere is getting colder, creating just the right conditions for chemicals like chlorine and bromine to destroy ozone.

Last year, researchers at the University of Colorado at Boulder discovered that winds circling high above the far northern hemisphere have a much greater impact on upper stratospheric ozone levels than previously thought. Those winds appear to be increasing with climate change, translating into less ozone in the upper stratosphere.

Meantime, the U.S. growers lobby group is upset that the U.S. delegation isn't pushing for higher volumes of methyl bromide, claiming that they could get far higher amounts under the Protocol's rules because economically viable alternatives are not yet available.

"It's time to inject some common sense into this process," said Charles Hall of the Georgia Fruit and Vegetable Growers Association in a statement.

U.S. growers have never understood that methyl bromide is destroying the ozone layer, said Doniger.

Italy, Greece and Spain have nearly eliminated their use in agriculture, he added.

"We're all suffering with a thinner ozone layer just to benefit a few U.S. companies," said Mate.

Source: IPS, 20 September 2007, By: Stephen Leahy , <http://www.ipsnews.net/news.asp?idnews=39335>

PACIFIC ISLANDS COUNTRIES

5- Blues Country Magazine : Veges Ease Ozone Depletion

The Australian agricultural industry's significant reduction in the consumption of the ozone depleting substance, Methyl Bromide, has been applauded internationally with an award presented by the United States of America Environment Protection Agency.

Scientists at the Victoria Department of Primary Industries Australian Methyl Bromide Phaseout Team, led by Dr Ian Porter, have been implementing changes to reduce the use of Methyl Bromide by Australian vegetable growers since the signing of the Montreal Protocol in 1987.

Methyl Bromide is an ozone depleting chemical, used for soil treatment in vegetable production.

Dr Porter's research teams' work has been instrumental in dramatically cutting Australia's ozone depleting substances and regenerating the ozone layer, with a 97 percent reduction in Methyl Bromide use.

Australian vegetable growers' efforts in decreasing their chemical substance use will have great benefits for the environment and to the health of people around the world.

AUSVEG board member David Anderson says Australia's commitment to the reduction of ozone depleting substances by the vegetable industry has received global critical acclaim.

"The US has applied to the UN Environment Programme to use over 4,000 tons of Methyl Bromide, while Australia has applied to use only 30 tons, specifically for strawberry runner production and rice growing," he says.

AUSVEG, the national peak industry body representing Australian vegetable growers, is committed to supporting the vegetable industry in reducing harmful chemical use and assisting the industry in finding suitable replacements.

The 2007 Montreal Protocol Stratospheric Ozone Protection Award was accepted by Anderson in Canada last week. The presentation coincides with the 20th anniversary of the Montreal Protocol, arguably the most successful international environmental agreement.

Source : Bleus Country Magazine, 28 September 2007, <http://www.bluescountry.com.au/article.cfm?Storyid=32868>

6- Protest Against Shipment

Protesters are likely to meet the next shipment of logs due in Picton for methyl bromide fumigation but details of the action are being kept quiet.

Soil and Health Association spokesman Steffan Browning said he was aware several people concerned about the use of methyl bromide were discussing a protest, but did not yet know what it would involve or where it would take place.

"They won't take this lying down ... (if) it's standing somewhere with a sign in a totally passive way then I think it's a bit more than writing a letter to the editor. It's actually being visible."

Port Marlborough cancelled a shipment from Shakespeare Bay last month following controversy over the use of methyl bromide. The company's chief executive, Des Ashton, said that it asked the forestry industry to divert the logs to organise a more comprehensive monitoring exercise.

The fumigation was always monitored by the fumigator, Genera Ltd, and Tasman Bay Stevedores.

However, for the next shipment the port company would do additional monitoring, measuring air quality, to allay public concern, Mr Ashton said. The Department of Labour would also be involved.

Log exporter Rick Osborne said the next shipment was scheduled for the end of this month or early next month. Mr Browning, who is also a mayoral candidate, distanced himself from organising the protest.

Though he has protested against other causes before and has consistently opposed the use of methyl bromide, he said his participation would depend on his success in the upcoming election and what form the protest would take.

"In an election situation, I don't think it's something most people would want.

"Leading a protest is something quite different than advocating them. I'm certainly in support of peaceful freedom of expression as long as it doesn't impinge on the public."

Mr Browning said the only long-term solution was not to have the fumigation in Picton.

However, if there was fumigation, it would be necessary to use capture and destruction technology to contain most of the gas and destroy it safely, he said.

Air monitoring was insufficient and air modelling would predict where the fumigant would go in certain conditions and the concentration.

Two public meetings organised by the Guardians of the Sounds have been held in Picton because of concern over the safety of using methyl bromide.

At a meeting last week, Mr Osborne said his company was working towards using phosphine instead of methyl bromide. Two-thirds of the log exports could be fumigated at sea in the ship's hold using phosphine. Guardians chairman Peter Beech said a guarantee was needed that there would be no more fumigation in Picton using methyl bromide of phosphine.

It is a requirement of the Indian Government that logs are fumigated with methyl bromide.

Source: The Marlborough Express, 3 October 2007, By [KATIE WYLIE](#) AND FAIRFAX - <http://www.stuff.co.nz/stuff/4224532a6563.html>

FEATURED READING >>>

[TEAP Final Report : Evaluations of 2007 Critical Use Nominations for Methyl Bromide and Related Matters - August 2007 - Corrigendum](#)

[Methyl Bromide: Quarantine and Preshipment Uses](#)

19MOP: Decision XIX/[]: Prevention of methyl bromide trade that is harmful to Parties operating under paragraph 1 of Article 5 ([E](#))

[Advance Unedited Draft Consolidation of Decisions Adopted by the Nineteenth Meeting of the Parties](#)

The United Nations Environment Programme Division of Technology, Industry, and Economics (UNEP DTIE) OzonAction Programme provides R U M B A as a free service to promote information exchange and stimulate discussion about methyl bromide phase out under the Montreal Protocol. The goal of R U M B A is to provide information, stimulate discussion and promote co-operation in support of compliance with the Montreal Protocol. With the exception of items written by UNEP and occasional contributions solicited from other organisations, the news is sourced from on-line newspapers, journals and websites. The views expressed in articles written by external authors and the views expressed by emails sent to the forum are solely the viewpoints and opinions of those authors and do not represent the policy or viewpoint of UNEP. While UNEP strives to avoid inclusion of misleading or inaccurate information, it is ultimately the responsibility of the reader to evaluate the accuracy of any news article. The citing of commercial technologies, products or services does not constitute endorsement of those items by UNEP.

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